

REMARKS

The Office Action of June 16, 2004, has been carefully reviewed, and in view of the above amendments and the following remarks, reconsideration and allowance of the pending claims are respectfully requested.

In the above Office Action, claims 10 and 11 were rejected under 35 U.S.C. § 112, second paragraph; claims 1-8 and 10-12 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Mussivand et al.* (U.S. Patent No. 6,290,639); claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mussivand et al.* in view of *Goldenberg* (U.S. Patent No. 5,498,043).

Responsive to the rejection under Section 112, claims 10 and 11 have been amended to more clearly define only the subcombination of the conduit assembly. Applicant respectfully submits that the rejection under Section 112 has been obviated.

The present invention relates to a conduit assembly for attachment to a mechanical circulatory device. The conduit assembly comprises a conduit for conducting blood between a patient and the mechanical circulatory device, the conduit including a first curved conduit and a second curved conduit. A first coupling is used for attaching a first end of the first curved conduit to the mechanical circulatory device. The first coupling is movable between a rotatable position wherein the first curved conduit is rotatable relative to the mechanical circulatory device, and a fixed position wherein the first curved conduit is fixedly positioned relative to the mechanical circulatory device. A second coupling is used for attaching a second end of the first curved conduit to a first end of the second curved conduit,

the second coupling being movable between a rotatable position wherein the second curved conduit is rotatable relative to the first curved conduit, and a fixed position wherein the second curved conduit is fixedly positioned relative to the first curved conduit. As amended above, the first and second curved conduits are rigid.

Thus, the present invention achieves an increased degree of adjustability for positioning the conduit assembly due to the combination of the first and second rigid, curved conduits and the recited first and second couplings. See, e.g. page 3, paragraphs [0008] and [0009]; page 6, paragraph [0020]; page 7, paragraph [0022], and page 8, paragraph [0023], of the current specification.

Mussivand et al., the primary reference upon which the Examiner relies, discloses an outflow assembly 200 comprising two basic components, an outflow conduit 210 and an outflow elbow assembly 270, which are adapted to be connected together (see, col. 8, lines 7-10) The outflow elbow assembly 270 is a rigid, curved conduit. In rejecting the claims of the present application, the Examiner contends that the outflow conduit 210 is also a rigid, curved conduit. However, *Mussivand et al.* specifically describes conduit 210 as comprising a tubular conduit section 215 made of a flexible, tissue compatible material, such as a woven polyester velour (see column 8, lines 12-25).

The use of flexible conduit 215 increases the risk of releasing thrombus into the blood stream, since thrombus formed on the wall of the flexible conduit could come off when the flexible conduit bends due to its flexibility. On the other hand, present invention uses first and second rigid conduits that do not bend and such that there is no increased risk to release thrombus.

Accordingly, Applicant respectfully submits that the first and second rigid conduits recited in claims 1 and 12 are not anticipated by the elbow conduit and flexible conduit of *Mussivand et al.*

Furthermore, in *Mussivand et al.*, the outflow conduit does not have a first coupling and a second coupling connecting the first and second rigid conduits. *Mussivand et al.* discloses a gland nut 280 disposed on the inflow end of the elbow assembly 270 such that the rigid elbow assembly may be rotated around the axis of the elbow assembly and then fixed at a desired angle relative to the VAD. The gland nut 260 disposed on the inflow end of the flexible conduit section 215 does not achieve this same "fixing" however due to the flexible nature of the conduit 215. That is, even if conduit 215 is moved to a desired position relative to the elbow assembly and the gland nut 260 is rotated to secure the inflow end of the conduit 215 to the outflow end of the elbow assembly 270 -- the position, or orientation, of the conduit 215 relative to the elbow assembly 270 is still not fixed, i.e., due to the flexibility of the conduit 215 the outflow end will not remain at a given position based upon the fixing of the inflow end.

Accordingly, Applicant respectfully submits that *Mussivand et al.* does not anticipate the first and second couplings as recited in claims 1 and 12.

CONCLUSION

In view of the above amendments and remarks, Applicant respectfully submits that the claims of the present application are now in condition for allowance, and an early indication of the same is earnestly solicited.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference would be helpful in resolving any remaining issues pertaining to this application; the Examiner is kindly invited to call the undersigned counsel for Applicant regarding the same.

Respectfully submitted,

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